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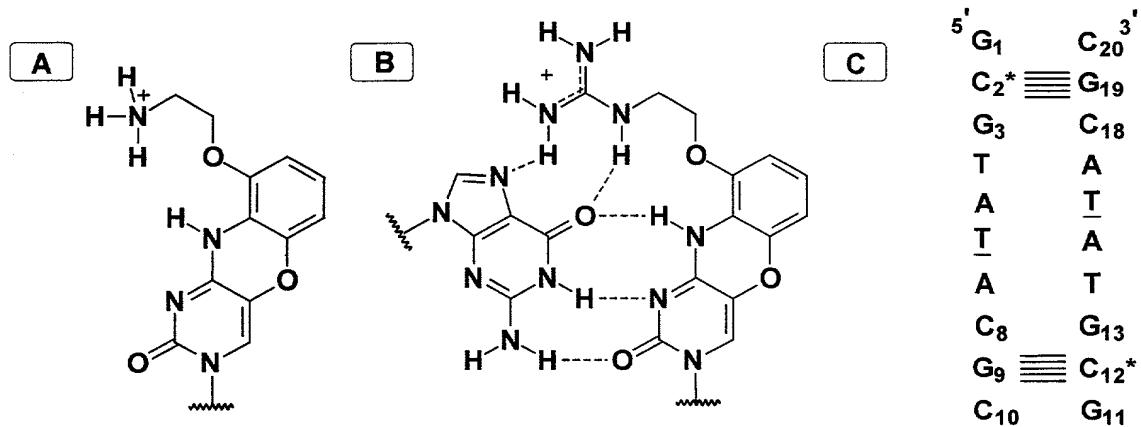


Figure 1. Structure of the tricyclic cytosine analog G-clamp⁵ (A), of its extended analog guanyl G-clamp hybridized to complementary guanosine (B), and of the palindromic decamer duplex crystallized for this study (C). The five hydrogen bonds formed between C* and G are indicated by horizontal lines (C* = guanyl G-clamp, T = 2'-O-MOE-T).

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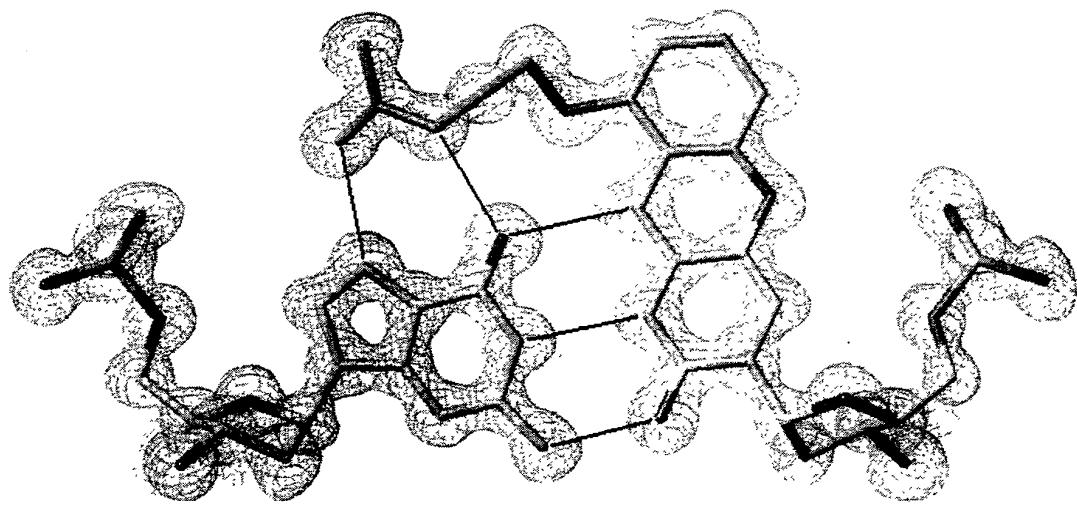


Figure 2. Fourier ($2F_o - F_c$) sum electron density map (contoured at 1.25σ) around C12* and G9 confirming formation of five hydrogen bonds (indicated by thin solid lines with distances shown in Å).

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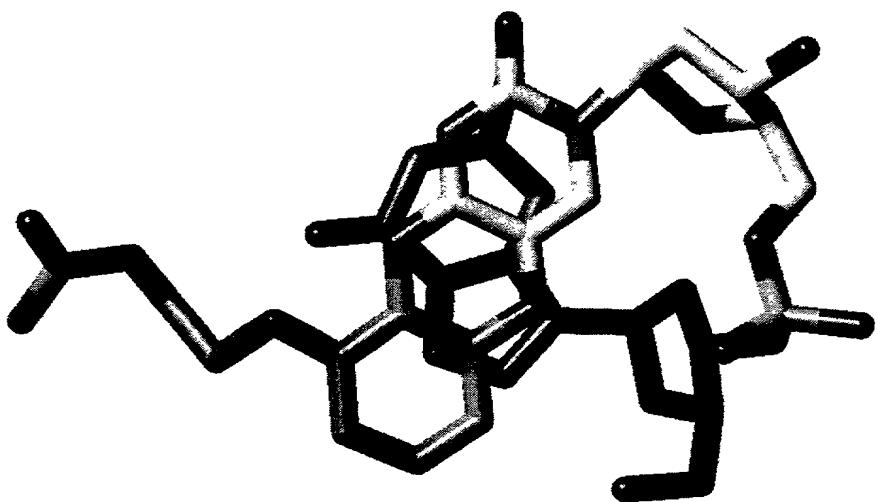


Figure 3. Stacking between G1 and C2*, viewed approximately along the vertical to the phenoxazine rings. Carbon atoms of G1 are shown in magenta, carbon atoms of the cytosine core of C2* are shown in yellow and the remainder of the carbons are in green.

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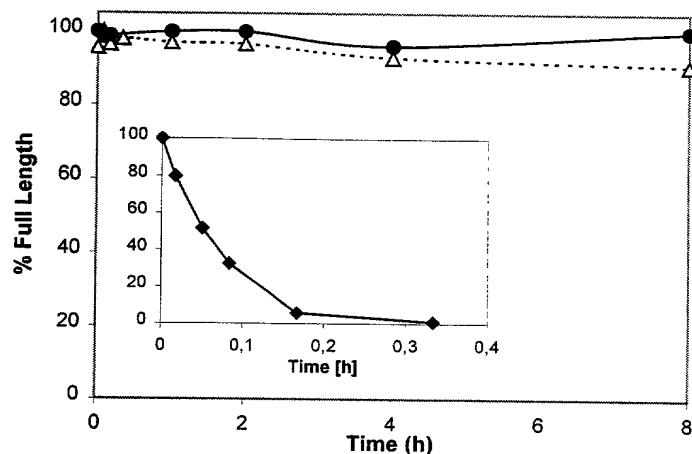
**Figure 4**

Figure 4. Degradation of ONs 157 (open triangles) and 158 (closed circles) as a function of incubation time and compared to an unmodified control ON 159 (closed diamonds, insert) determined by CGE analysis.

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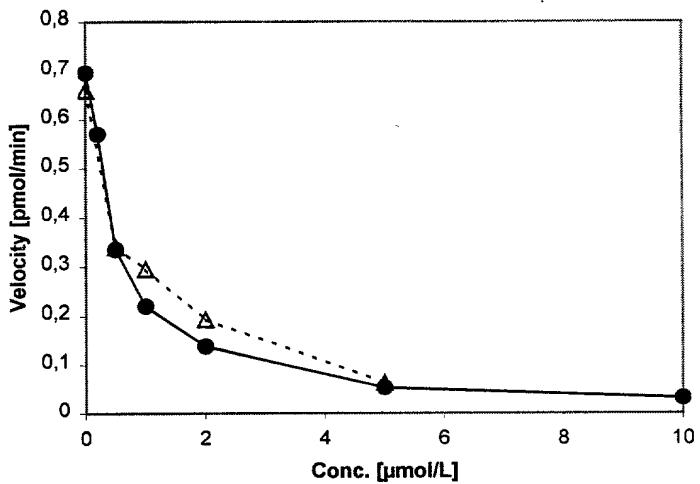
**Figure 5.**

Figure 5. Velocity of the enzymatic reaction: hydrolysis of ON 159 with BIPD as a function of the concentration of co-incubated ON 157 (open triangles) and ON 158 (closed circles).

10-4804
Title: Nuclease Resistant Chimeric Oligonucleotides
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Stability of 3'-L-Nucleotide End-Capped

BalbC
mice
25 mg/kg
dose
i.v.

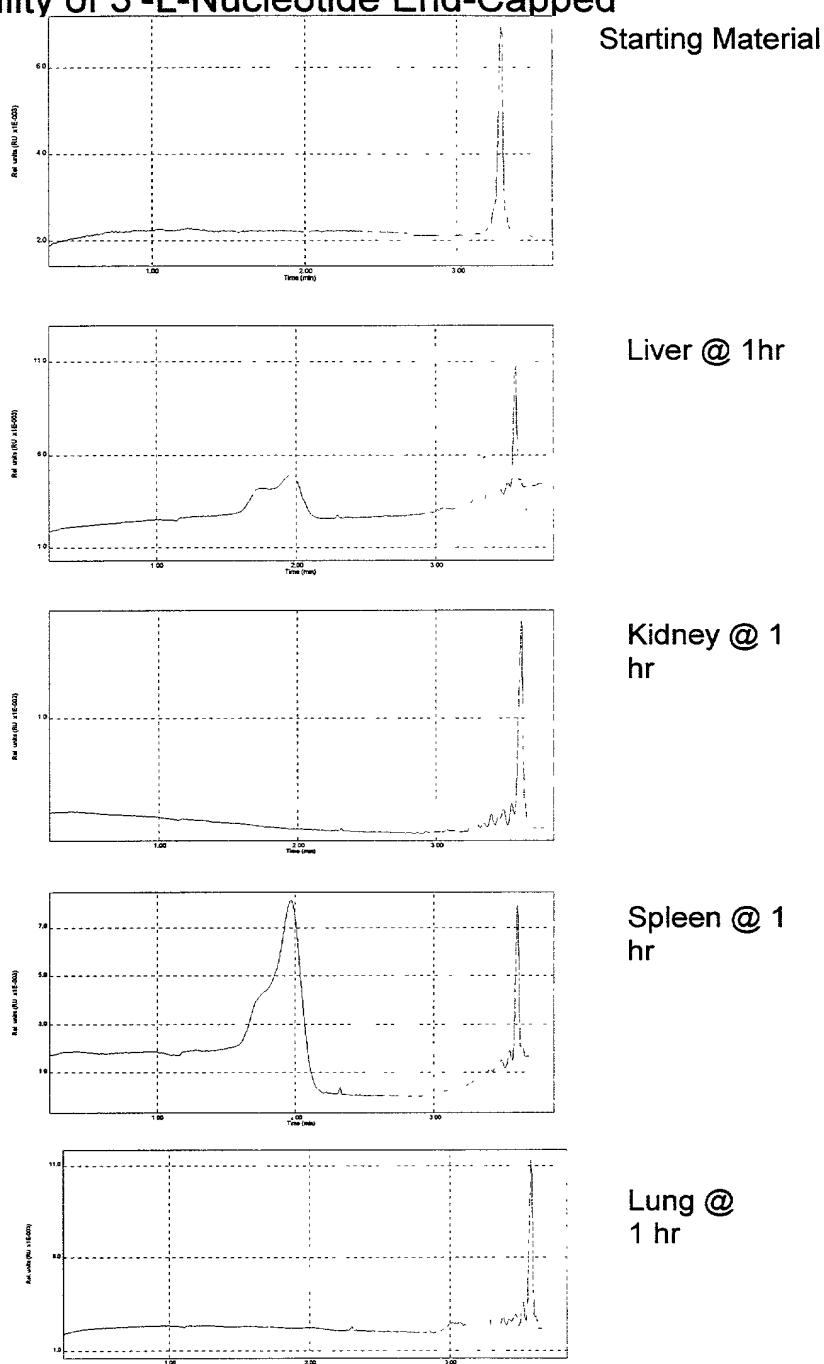
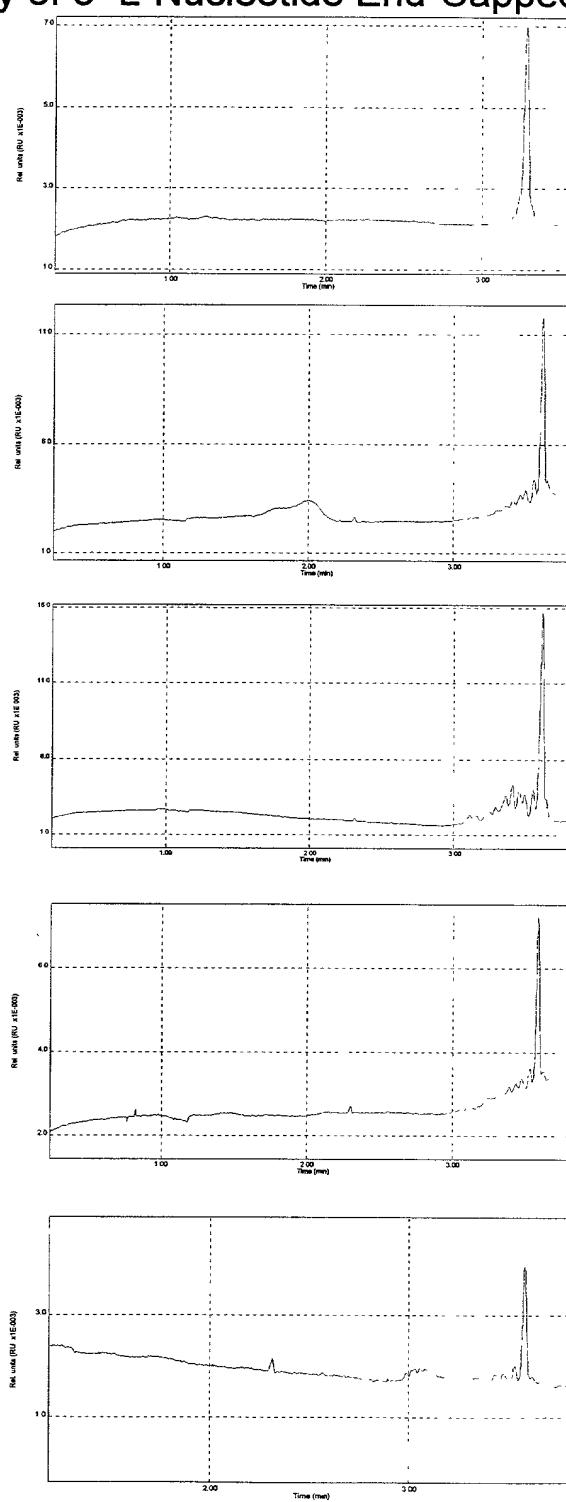


Figure 6

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Stability of 3'-L-Nucleotide End-Capped

BalbC
mice
25 mg/kg
dose
i.v.



Starting Material

Liver @ 24
hrKidney @ 24
hr

Spleen @ 24 hr

Lung @ 24 hr

Figure 7